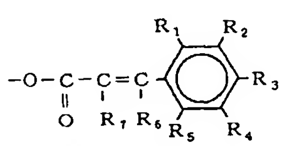
## AMENDMENTS TO THE SPECIFICATION

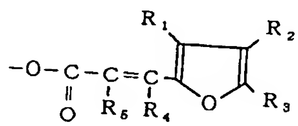
**Please delete the fourth full paragraph on page 4 and replace it with the following paragraph:**

In addition, as the photosensitive polymer, those preferably used are photosensitive homopolymers or copolymers which have at least one of structures represented by the following molecular structure 1 to 9 and in which the main chain represented by the molecular structure 10 is a hydrocarbon, acrylate, methacrylate, maleimide, N-phenylmaleimide or siloxane. Also, as the low molecular weight compound, those having a molecular structure represented by the molecular structure 11 or 12 are preferable.

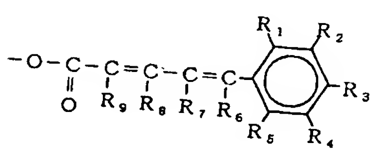
[~~C~~1]



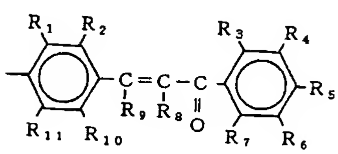
[~~C~~2]



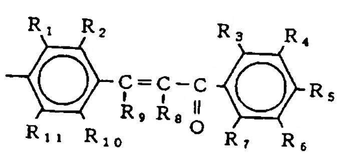
[~~C~~3]



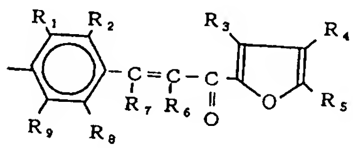
[~~C~~4]



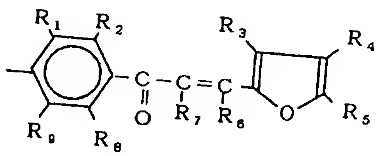
[~~C~~5]



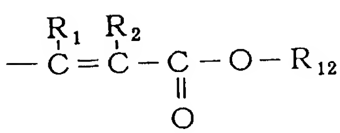
[~~C~~6]



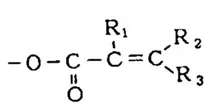
[~~C~~7]



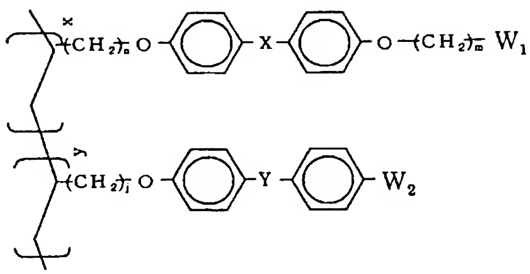
[~~C~~8]



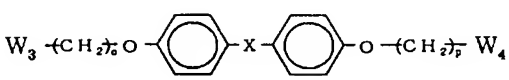
[~~C~~9]



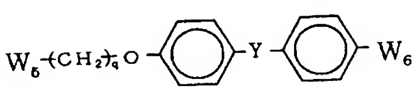
[~~C~~10]



[~~C~~11]



[~~C~~12]



wherein $-R_1$ to $-R_{11}$ = -H, halogen group, -CN, alkyl group or alkyloxy group, e.g., methoxy group or group obtained by fluorinating each of these groups, $-R_{12}$ = alkyl group, e.g., methyl group or ethyl group or group obtained by fluorinating each of these groups, x : y = 100 to 0 : 0 to 100, n = 1 to 12, m = 1 to 12, j = 1 to 12, o = 1 to 12, p = 1 to 12, q = 1 to 12, X, Y = none, -COO, -OCO-, -N=N-, -C=C- or $-C_6H_4-$, $W_1$, $W_2$, $W_3$, $W_4$, $W_5$, $W_6$ = structure represented by molecular structure 1, 2, 3, 4, 5, 6, 7, 8 or 9.

**Please delete the last paragraph beginning on page 13 and replace it with the following paragraph:**

This state will be explained with reference to Fig. 2. In coating layer 20, side chain 2a which has a photosensitive group shown by the long ellipsoid and high-sensitive orientation, that is, it is oriented corresponding to the direction of the oscillation m of the irradiated polarized ultraviolet ray L and to the direction perpendicular to the direction of the advance of the irradiated light, side chain 2b having a poor-sensitive orientation and liquid crystal compound 2c shown by the column chromatography coexist at random. If this layer is exposed to polarized light, a photo-reaction of the side chain 2a which is oriented corresponding to the direction of the electric field oscillation of the irradiated light and in the direction perpendicular to the direction of the advance of the irradiated light proceeds predominantly in the initial stage. In order to advance this photo-reaction,

it is necessary to irradiate with light having a wavelength allowing the photosensitive group portion represented by the molecular structure 1 to 9 to react. This wavelength is generally 200 to 500 nm and light having 250 to 400 nm among these wavelengths are highly effective in many cases, though this wavelength differs depending upon the types of $-R_1$ to $-R_{12}$ shown in the formula 1 to 9.

**Please delete the first full paragraph on page 14 and replace it with the following paragraph:**

When the reaction has been advanced by irradiating a film 20 shown in Fig. 2 with light, <u>as shown in Fig. 3,</u> the side chain 3b (2b) of the polymer and low molecular weight compound 3c (2c) which have not participated in the photo-reaction in the early stage are reoriented due to molecular motion during exposure. Specifically, the side chain 3b (2b) of the polymer and low molecular weight compound 3c (2c) which has not entered into a photo-reaction because they are not oriented in the direction perpendicular to both the direction of the electric field oscillation of the polarized light and to the direction of the advance of the irradiated light are reoriented in the same direction as the photo-reacted side chain 3a (2a). As a result, the side chain of the polymer and the molecule of the low molecular weight compound are oriented in the direction of the electric field oscillation <u>m</u> of the irradiated linear polarized light and in the direction perpendicular to the

direction of the advance of the irradiated light, resulting in the production of a film 30 in which retardation is induced.

**Please delete the fourth full paragraph on page 46 and replace it with the following paragraph:**

In addition, in this second example of the third production process, as shown in Fig. 14, a layer 10 formed of a photosensitive polymer or of a mixture of a photosensitive polymer and a low molecular weight compound is irradiated with linear polarized light ($L_{22}$) in a direction oblique to the direction of the normal line of the aforementioned film and also with linear polarized light ($L_{21}$) having an electric field oscillating plane orthogonal to that of the linear polarized light ($L_{22}$) in the direction of the normal line of the layer.

**Please delete the last paragraph beginning on page 14 and replace it with the following paragraph:**

At this time, the film 30 can be oriented with the optical axis being arbitrarily inclined by carrying out the aforementioned exposure in a direction oblique to the surface of the layer. As a result, a retardation film whose optical axis is arranged in a desired direction is formed. To measure the inclination of the optical axis, a crystal rotation method in which the transmission strength of polarized light is measured while the

sample to be measured is rotated as described in Japanese Applied Physics, Vol, 19, 2013 (1980) is used for the sake of convenience. In this measurement method, the three-dimensional birefringence of the sample to be measured may be measured from the angle dependency of the transmittance of the polarized light.

**Please delete the fourth full paragraph on page 46 and replace it with the following paragraph:**

In addition, in this second example of the third production process, as shown in Fig. 14, a layer 10 formed of a photosensitive polymer or of a mixture of a photosensitive polymer and a low molecular weight compound is irradiated with linear polarized light ($L_{22}$) in a direction oblique to the direction of the normal line of the aforementioned film and also with linear polarized light ($L_{21}$) having an electric field oscillating plane orthogonal to that of the linear polarized light ($L_{22}$) in the direction of the normal line of the layer.

**Please delete the second full paragraph on page 47 and replace it with the following paragraph:**

In Fig. 16, in the case of combining the index ellipsoid 91 which is obliquely oriented in the retardation film 90 disposed on the upper side with an index ellipsoid 91' which is horizontally oriented in a retardation film 90 on the lower side with a liquid

crystal cell 95 sandwiched therebetween , two negative index ellipsoids 9a and 9b which have the effect of enlarging the viewing angle of the liquid crystal display are inclined to develop the same optical characteristics as in the case where the directions of these ellipsoids are orthogonal to each other.

**Please delete the fourth full paragraph on page 49 and replace it with the following paragraph:**

In addition, in this third example of the third production process, as shown in Fig. 18, a layer 10 formed of a photosensitive polymer or of a mixture of a photosensitive polymer and a low molecular weight compound is irradiated with linear polarized light ($L_{32}$) in a direction oblique to the direction of the normal line of the aforementioned layer and also with linear polarized light ($L_{31}$) having an electric field oscillating plane orthogonal to that of the linear polarized light ($L_{32}$) in the direction of the normal line of the layer.